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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.
"Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate"

ASRock Website: http://www.asrock.com

English

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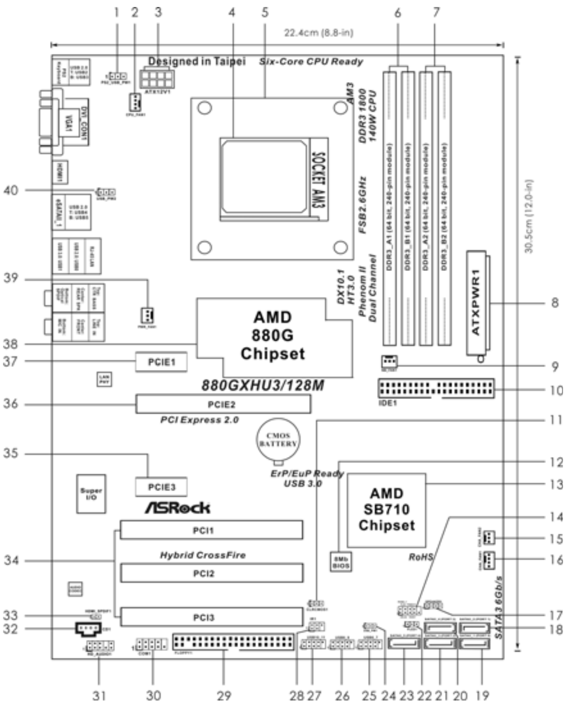
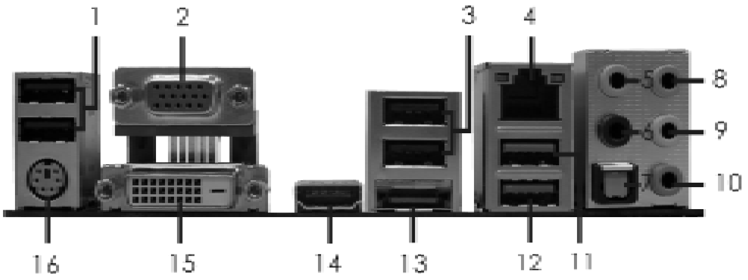
Motherboard Layout



1 PS2_USB_PW1 Jumper
2 CPU Fan Connector (CPU_FAN1)
3 ATX 12V Power Connector (ATX12V1)
4 AM3 CPU Socket
5 CPU Heatsink Retention Module
6 2 x 240-pin DDR3 DIMM Slots
(Dual Channel A: DDR3_A1, DDR3_B1; Blue)
7 2 x 240-pin DDR3 DIMM Slots
(Dual Channel B: DDR3_A2, DDR3_B2; White)
8 ATX Power Connector (ATXPWR1)
9 Northbridge Fan Connector (NB_FAN1)
10 Primary IDE Connector (IDE1, Blue)
11 Clear CMOS Jumper (CLRCMOS1)
12 SPI Flash Memory (8Mb)
13 Southbridge Controller
14 System Panel Header (PANEL1, White)
15 Chassis Fan Connector (CHA_FAN2)
16 Chassis Fan Connector (CHA_FAN1)
17 Chassis Speaker Header (SPEAKER 1, White)
18 SATAII Connector (SATAII_2 (PORT 1), Blue)
19 SATAII Connector (SATAII_1 (PORT 0), Blue)
20 SATAII Connector (SATAII_4 (PORT 3), Blue)
21 SATAII Connector (SATAII_3 (PORT 2), Blue)
22 Power LED Header (PLED1)
23 SATAII Connector (SATAII_5 (PORT 4), Blue)
24 USB_PW1 Jumper
25 USB 2.0 Header (USB6_7, Blue)
26 USB 2.0 Header (USB8_9, Blue)
27 USB 2.0 Header (USB10_11, Blue)
28 Infrared Module Header (IR1)
29 Floppy Connector (FLOPPY1)
30 Serial Port Connector (COM1)
31 Front Panel Audio Header
(HD_AUDIO1, White)
32 Internal Audio Connector: CD1 (Black)
33 HDMI_SPDIF Header
(HDMI_SPDIF1, White)
34 PCI Slots (PCI1-3)
35 PCI Express 2.0 x1 Slot (PCIE3; White)
36 PCI Express 2.0 x16 Slot (PCIE2; Blue)
37 PCI Express 2.0 x1 Slot (PCIE1; White)
38 Northbridge Controller
39 Power Fan Connector (PWR_FAN1)
40 USB_PW2 Jumper

I/O Panel



1	USB 2.0 Ports (USB23)	** 9	Front Speaker (Lime)
2	VGA/D-Sub Port	10	Microphone (Pink)
3	USB 2.0 Ports (USB45)	11	USB 2.0 Port (USB0)
* 4	LAN RJ-45 Port	12	USB 3.0 Port (USB1)
5	Central / Bass (Orange)	13	eSATAII Port (eSATAII_1)
6	Rear Speaker (Black)	14	VGA/HDMI Port
7	Optical SPDIF Out Port	15	VGA/DVI-D Port
8	Line In (Light Blue)	16	PS/2 Keyboard Port (Purple)

* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

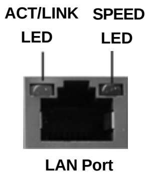
LAN Port LED Indications

Activity/Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED

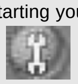
Status	Description
Off	10Mbps connection
Orange	100Mbps connection
Green	1Gbps connection



** If you use 2-channel speaker, please connect the speaker's plug into "Front Speaker Jack". See the table below for connection details in accordance with the type of speaker you use.

TABLE for Audio Output Connection

Audio Output Channels	Front Speaker (No. 9)	Rear Speaker (No. 6)	Central / Bass (No. 5)	Line In (No. 8)
2	V	--	--	--
4	V	V	--	--
6	V	V	V	--
8	V	V	V	V

To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. After restarting your computer, you will find "Mixer" tool on your system. Please select "Mixer ToolBox"  , click "Enable playback multi-streaming", and click "ok". Choose "2CH", "4CH", "6CH", or "8CH" and then you are allowed to select "Realtek HDA Primary output" to use Rear Speaker, Central/Bass, and Front Speaker, or select "Realtek HDA Audio 2nd output" to use front panel audio.

1. Introduction

Thank you for purchasing ASRock ***880GXHU3/128M*** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

In this manual, chapter 1 and 2 contain introduction of the motherboard and step-by-step guide to the hardware installation. Chapter 3 and 4 contain the configuration guide to BIOS setup and information of the Support CD.

> Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website http://www.asrock.com
> If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.
> www.asrock.com/support/index.asp

1.1 Package Contents

ASRock ***880GXHU3/128M*** Motherboard
(ATX Form Factor: 12.0-in x 8.8-in, 30.5 cm x 22.4 cm)
ASRock ***880GXHU3/128M*** Quick Installation Guide
ASRock ***880GXHU3/128M*** Support CD
2 x Serial ATA (SATA) Data Cables (Optional)
1 x I/O Panel Shield

1.2 Specifications

Platform	- ATX Form Factor: 12.0-in x 8.8-in, 30.5 cm x 22.4 cm - All Solid Capacitor design
CPU	- Support for Socket AM3 processors: AMD Phenom™ II X6 / X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processors - Six-Core CPU Ready - Supports CPU up to 140W - Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration) - V4 + 1 Power Phase Design - Supports AMD's Cool 'n' Quiet™ Technology - FSB 2600 MHz (5.2 GT/s) - Supports Untied Overclocking Technology (see **CAUTION 1**) - Supports Hyper-Transport 3.0 (HT 3.0) Technology
Chipset	- Northbridge: AMD 880G - Southbridge: AMD SB710
Memory	- Dual Channel DDR3 Memory Technology (see **CAUTION 2**) - 4 x DDR3 DIMM slots - Support DDR3 1800(OC)/1600(OC)/1333/1066/800 non-ECC, un-buffered memory (see **CAUTION 3**) - Max. capacity of system memory: 16GB (see **CAUTION 4**)
Expansion Slot	- 1 x PCI Express 2.0 x16 slot (blue @ x16 mode) - 2 x PCI Express 2.0 x1 slots - 3 x PCI slots - Supports ATI™ Hybrid CrossFireX™
Graphics	- Integrated AMD Radeon HD 4250 graphics - DX10.1 class iGPU, Shader Model 4.1 - Max. shared memory 512MB (see **CAUTION 5**) - Integrated 128MB side port memory for iGPU - Three VGA Output options: D-Sub, DVI-D and HDMI - Supports HDMI Technology with max. resolution up to 1920x1200 (1080P) - Supports Dual-link DVI with max. resolution up to 2560x1600 @ 75Hz - Supports D-Sub with max. resolution up to 2048x1536 @ 85Hz - Supports HDCP function with DVI and HDMI ports - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI and HDMI ports

English

Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec) - Premium Blu-ray audio support
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN
Rear Panel I/O	I/O Panel - 1 x PS/2 Keyboard Port - 1 x VGA/D-Sub Port - 1 x VGA/DVI-D Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 5 x Ready-to-Use USB 2.0 Ports - 1 x eSATAII Connector - 1 x Ready-to-Use USB 3.0 Port - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Rear Speaker/Central/Bass/Line in/ Front Speaker/Microphone (see **CAUTION 6**)
USB 3.0	- 1 x USB 3.0 port by Fresco FL1000G, supports USB 3.0 up to 5Gb/s
Connector	- 5 x Serial ATAII 3.0Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions (see **CAUTION 7**) - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x COM port header - 1 x HDMI_SPDIF header - 1 x Power LED header - CPU/Chassis/NB/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - CD in header - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports)
BIOS Feature	- 8Mb AMI BIOS - AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU, VCCM, NB, SB Voltage Multi-adjustment

English

Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, AMD Live! Explorer, AMD Fusion, ASRock Software Suite (CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial)

Unique Feature	- ASRock OC Tuner (see **CAUTION 8**)
	- Intelligent Energy Saver (see **CAUTION 9**)
	- Instant Boot
	- ASRock Instant Flash (see **CAUTION 10**)
	- ASRock OC DNA (see **CAUTION 11**)
	- Hybrid Booster:
	    - CPU Frequency Stepless Control (see **CAUTION 12**)
	    - ASRock U-COP (see **CAUTION 13**)
	    - Boot Failure Guard (B.F.G.)
	- Turbo 40 / Turbo 50 GPU Overclocking

Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/NB/Power Fan Tachometer - CPU Quiet Fan - CPU/Chassis Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required) (see **CAUTION 14**)

* For detailed product information, please visit our website: http://www.asrock.com

WARNING

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using the third-party overclocking tools. Overclocking may affect your system stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

English

CAUTION!

1. This motherboard supports Untied Overclocking Technology. Please read “Untied Overclocking Technology” on page 26 for details.
2. This motherboard supports Dual Channel Memory Technology. Before you implement Dual Channel Memory Technology, make sure to read the installation guide of memory modules on page 12 for proper installation.
3. Whether 1800/1600MHz memory speed is supported depends on the AM3 CPU you adopt. If you want to adopt DDR3 1800/1600 memory module on this motherboard, please refer to the memory support list on our website for the compatible memory modules.
   ASRock website http://www.asrock.com
4. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 7 / Vista™ / XP. For Windows® OS with 64-bit CPU, there is no such limitation.
5. The maximum shared memory size is defined by the chipset vendor and is subject to change. Please check AMD website for the latest information.
6. For microphone input, this motherboard supports both stereo and mono modes. For audio output, this motherboard supports 2-channel, 4-channel, 6-channel, and 8-channel modes. Please check the table on page 3 for proper connection.
7. Before installing SATAII hard disk to SATAII connector, please read the “SATAII Hard Disk Setup Guide” on page 29 of “User Manual” in the support CD to adjust your SATAII hard disk drive to SATAII mode. You can also connect SATA hard disk to SATAII connector directly.
8. It is a user-friendly ASRock overclocking tool which allows you to surveil your system by hardware monitor function and overclock your hardware devices to get the best system performance under Windows® environment. Please visit our website for the operation procedures of ASRock OC Tuner. ASRock website: http://www.asrock.com
9. Featuring an advanced proprietary hardware and software design, Intelligent Energy Saver is a revolutionary technology that delivers unparalleled power savings. The voltage regulator can reduce the number of output phases to improve efficiency when the CPU cores are idle. In other words, it is able to provide exceptional power saving and improve power efficiency without sacrificing computing performance. To use Intelligent Energy Saver function, please enable Cool ‘n’ Quiet option in the BIOS setup in advance. Please visit our website for the operation procedures of Intelligent Energy Saver.
   ASRock website: http://www.asrock.com

10. ASRock Instant Flash is a BIOS flash utility embedded in Flash ROM. This convenient BIOS update tool allows you to update system BIOS without entering operating systems first like MS-DOS or Windows®. With this utility, you can press <F6> key during the POST or press <F2> key to BIOS setup menu to access ASRock Instant Flash. Just launch this tool and save the new BIOS file to your USB flash drive, floppy disk or hard drive, then you can update your BIOS only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system.
11. The software name itself – OC DNA literally tells you what it is capable of. OC DNA, an exclusive utility developed by ASRock, provides a convenient way for the user to record the OC settings and share with others. It helps you to save your overclocking record under the operating system and simplifies the complicated recording process of overclocking settings. With OC DNA, you can save your OC settings as a profile and share with your friends! Your friends then can load the OC profile to their own system to get the same OC settings as yours! Please be noticed that the OC profile can only be shared and worked on the same motherboard.
12. Although this motherboard offers stepless control, it is not recommended to perform over-clocking. Frequencies other than the recommended CPU bus frequencies may cause the instability of the system or damage the CPU.
13. While CPU overheat is detected, the system will automatically shutdown. Before you resume the system, please check if the CPU fan on the motherboard functions properly and unplug the power cord, then plug it back again. To improve heat dissipation, remember to spray thermal grease between the CPU and the heatsink when you install the PC system.
14. EuP, stands for Energy Using Product, was a provision regulated by European Union to define the power consumption for the completed system. According to EuP, the total AC power of the completed system shall be under 1.00W in off mode condition. To meet EuP standard, an EuP ready motherboard and an EuP ready power supply are required. According to Intel's suggestion, the EuP ready power supply must meet the standard of 5v standby power efficiency is higher than 50% under 100 mA current consumption. For EuP ready power supply selection, we recommend you checking with the power supply manufacturer for more details.

2. Installation

This is an ATX form factor (12.0-in x 8.8-in, 30.5 cm x 22.4 cm) motherboard. Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.

Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

> Before you install or remove any component, ensure that the power is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

1. Unplug the power cord from the wall socket before touching any component.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded anti-static pad or in the bag that comes with the component.
5. When placing screws into the screw holes to secure the motherboard to the chassis, please do not over-tighten the screws! Doing so may damage the motherboard.

2.1 CPU Installation

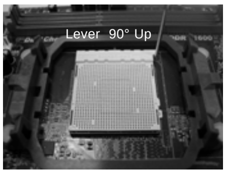
Step 1. Unlock the socket by lifting the lever up to a 90° angle.

Step 2. Position the CPU directly above the socket such that the CPU corner with the golden triangle matches the socket corner with a small triangle.

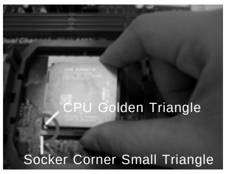
Step 3. Carefully insert the CPU into the socket until it fits in place.

> The CPU fits only in one correct orientation. DO NOT force the CPU into the socket to avoid bending of the pins.

Step 4. When the CPU is in place, press it firmly on the socket while you push down the socket lever to secure the CPU. The lever clicks on the side tab to indicate that it is locked.



STEP 1:
Lift Up The Socket Lever



STEP 2 / STEP 3:
Match The CPU Golden Triangle To The Socket Corner Small Triangle

STEP 4:
Push Down And Lock The Socket Lever

2.2 Installation of CPU Fan and Heatsink

After you install the CPU into this motherboard, it is necessary to install a larger heatsink and cooling fan to dissipate heat. You also need to spray thermal grease between the CPU and the heatsink to improve heat dissipation. Make sure that the CPU and the heatsink are securely fastened and in good contact with each other. Then connect the CPU fan to the CPU FAN connector (CPU_FAN1, see Page 2, No. 2). For proper installation, please kindly refer to the instruction manuals of the CPU fan and the heatsink.

English

2.3 Installation of Memory Modules (DIMM)

This motherboard provides four 240-pin DDR3 (Double Data Rate 3) DIMM slots, and supports Dual Channel Memory Technology. For dual channel configuration, you always need to install **identical** (the same brand, speed, size and chip-type) DDR3 DIMM pair in the slots of the same color. In other words, you have to install **identical** DDR3 DIMM pair in **Dual Channel A** (DDR3_A1 and DDR3_B1; Blue slots; see p.2 No.6) or **identical** DDR3 DIMM pair in **Dual Channel B** (DDR3_A2 and DDR3_B2; White slots; see p.2 No.7), so that Dual Channel Memory Technology can be activated. This motherboard also allows you to install four DDR3 DIMMs for dual channel configuration, and please install **identical** DDR3 DIMMs in all four slots. You may refer to the Dual Channel Memory Configuration Table below.

Dual Channel Memory Configurations

	DDR3_A1 (Blue Slot)	DDR3_B1 (Blue Slot)	DDR3_A2 (White Slot)	DDR3_B2 (White Slot)
(1)	Populated	Populated	-	-
(2)	-	-	Populated	Populated
(3)*	Populated	Populated	Populated	Populated

* For the configuration (3), please install **identical** DDR3 DIMMs in all four slots.

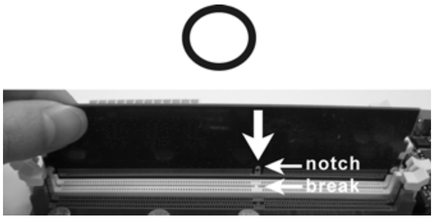
1. If you want to install two memory modules, for optimal compatibility and reliability, it is recommended to install them in the slots of the same color. In other words, install them either in the set of blue slots (DDR3_A1 and DDR3_B1), or in the set of white slots (DDR3_A2 and DDR3_B2).
2. If only one memory module or three memory modules are installed in the DDR3 DIMM slots on this motherboard, it is unable to activate the Dual Channel Memory Technology.
3. If a pair of memory modules is NOT installed in the same Dual Channel, for example, installing a pair of memory modules in DDR3_A1 and DDR3_A2, it is unable to activate the Dual Channel Memory Technology .
4. It is not allowed to install a DDR or DDR2 memory module into DDR3 slot; otherwise, this motherboard and DIMM may be damaged.
5. If you adopt DDR3 1800/1600 memory modules on this motherboard, it is recommended to install them on DDR3_A2 and DDR3_B2 slots.

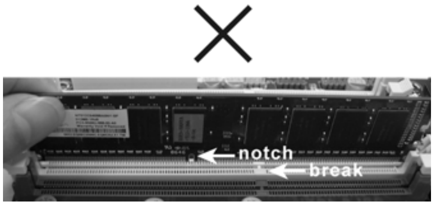
Installing a DIMM

> Please make sure to disconnect power supply before adding or removing DIMMs or the system components.

Step 1. Unlock a DIMM slot by pressing the retaining clips outward.

Step 2. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.





> The DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the DIMM if you force the DIMM into the slot at incorrect orientation.

Step 3. Firmly insert the DIMM into the slot until the retaining clips at both ends fully snap back in place and the DIMM is properly seated.

English

2.4 Expansion Slots (PCI and PCI Express Slots)

There are 3 PCI slots and 3 PCI Express slots on this motherboard.

PCI Slots: PCI slots are used to install expansion cards that have the 32-bit PCI interface.

PCIE Slots:

PCIE1 / PCIE3 (PCIE x1 slot; White) is used for PCI Express cards with x1 lane width cards, such as Gigabit LAN card and SATA2 card.

PCIE2 (PCIE x16 slot; Blue) is used for PCI Express x16 lane width graphics cards.

Installing an expansion card

Step 1. Before installing the expansion card, please make sure that the power supply is switched off or the power cord is unplugged. Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.

Step 2. Remove the system unit cover (if your motherboard is already installed in a chassis).

Step 3. Remove the bracket facing the slot that you intend to use. Keep the screws for later use.

Step 4. Align the card connector with the slot and press firmly until the card is completely seated on the slot.

Step 5. Fasten the card to the chassis with screws.

Step 6. Replace the system cover.

2.5 Dual Monitor and Surround Display Features

Dual Monitor Feature

This motherboard supports dual monitor feature. With the internal VGA output support (DVI-D, D-Sub and HDMI), you can easily enjoy the benefits of dual monitor feature without installing any add-on VGA card to this motherboard. This motherboard also provides independent display controllers for DVI-D, D-Sub and HDMI to support dual VGA output so that DVI-D, D-sub and HDMI can drive same or different display contents.
To enable dual monitor feature, please follow the below steps:

1. Connect DVI-D monitor cable to VGA/DVI-D port on the I/O panel, connect D-Sub monitor cable to VGA/D-Sub port on the I/O panel, or connect HDMI monitor cable to HDMI port on the I/O panel.

VGA/D-Sub port

VGA/DVI-D port **HDMI port**

2. If you have installed onboard VGA driver from our support CD to your system already, you can freely enjoy the benefits of dual monitor function after your system boots. If you haven't installed onboard VGA driver yet, please install onboard VGA driver from our support CD to your system and restart your computer. Then you can start to use dual monitor function on this motherboard.

> 1. DVI-D and HDMI ports cannot function at the same time. When one of them is enabled, the other one will be disabled.
> 2. When you playback HDCP-protected video from Blu-ray (BD) or HD-DVD disc, the content will be displayed only in one of the two monitors instead of both monitors.

English

Surround Display Feature
This motherboard supports surround display upgrade. With the internal VGA output support (DVI-D, D-Sub and HDMI) and external add-on PCI Express VGA cards, you can easily enjoy the benefits of surround display feature.
Please refer to the following steps to set up a surround display environment:

1. Install the ATI™ PCI Express VGA card on PCIE2 slot. Please refer to page 14 for proper expansion card installation procedures for details.
2. Connect DVI-D monitor cable to VGA/DVI-D port on the I/O panel, connect D-Sub monitor cable to VGA/D-Sub port on the I/O panel, or connect HDMI monitor cable to HDMI port on the I/O panel. Then connect other monitor cables to the corresponding connectors of the add-on PCI Express VGA card on PCIE2 slot.
3. Boot your system. Press <F2> to enter BIOS setup. Enter "Share Memory" option to adjust the memory capability to [32MB], [64MB], [128MB] [256MB] or [512MB] to enable the function of VGA/D-sub. Please make sure that the value you select is less than the total capability of the system memory. If you do not adjust the BIOS setup, the default value of "Share Memory", [Auto], will disable VGA/D-Sub function when the add-on VGA card is inserted to this motherboard.
4. Install the onboard VGA driver and the add-on PCI Express VGA card driver to your system. If you have installed the drivers already, there is no need to install them again.
5. Set up a multi-monitor display.

For Windows® XP / XP 64-bit OS:

Right click the desktop, choose "Properties", and select the "Settings" tab so that you can adjust the parameters of the multi-monitor according to the steps below.

A. Click the "Identify" button to display a large number on each monitor.
B. Right-click the display icon in the Display Properties dialog that you wish to be your primary monitor, and then select "Primary". When you use multiple monitors with your card, one monitor will always be Primary, and all additional monitors will be designated as Secondary.
C. Select the display icon identified by the number 2.
D. Click "Extend my Windows desktop onto this monitor".
E. Right-click the display icon and select "Attached", if necessary.
F. Set the "Screen Resolution" and "Color Quality" as appropriate for the second monitor. Click "Apply" or "OK" to apply these new values.
G. Repeat steps C through E for the diaplay icon identified by the number one, two, three and four.

English

For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:

Right click the desktop, choose “Personalize”, and select the “Display Settings” tab so that you can adjust the parameters of the multi-monitor according to the steps below.

A. Click the number ”2” icon.

B. Click the items “This is my main monitor” and “Extend the desktop onto this monitor”.

C. Click “OK” to save your change.

D. Repeat steps A through C for the display icon identified by the number three and four.

6. Use Surround Display. Click and drag the display icons to positions representing the physical setup of your monitors that you would like to use. The placement of display icons determines how you move items from one monitor to another.

HDCP Function

HDCP function is supported on this motherboard. To use HDCP function with this motherboard, you need to adopt the monitor that supports HDCP function as well. Therefore, you can enjoy the superior display quality with high-definition HDCP encryption contents. Please refer to below instruction for more details about HDCP function.

What is HDCP?

HDCP stands for High-Bandwidth Digital Content Protection, a specification developed by Intel® for protecting digital entertainment content that uses the DVI interface. HDCP is a copy protection scheme to eliminate the possibility of intercepting digital data midstream between the video source, or transmitter - such as a computer, DVD player or set-top box - and the digital display, or receiver - such as a monitor, television or projector. In other words, HDCP specification is designed to protect the integrity of content as it is being transmitted.

Products compatible with the HDCP scheme such as DVD players, satellite and cable HDTV set-top-boxes, as well as few entertainment PCs requires a secure connection to a compliant display. Due to the increase in manufacturers employing HDCP in their equipment, it is highly recommended that the HDTV or LCD monitor you purchase is compatible.

2.6 ATI™ Hybrid CrossFireX™ Operation Guide

This motherboard supports ATI™ Hybrid CrossFireX™ feature. ATI™ Hybrid CrossFireX™ brings multi-GPU performance capabilities by enabling an AMD 880G integrated graphics processor and a discrete graphics processor to operate simultaneously with combined output to a single display for blisteringly-fast frame rates. Currently, ATI™ Hybrid CrossFireX™ Technology is only supported with Windows® Vista™ / 7 OS, and is not available with Windows® XP OS. In the future, ATI™ Hybrid CrossFireX™ may be supported with Windows® XP OS. Please visit our website for updated information.

What does an ATI™ Hybrid CrossFireX™ system include?

An ATI™ Hybrid CrossFireX™ system includes an ATI™ Radeon™ 2400 or ATI™ Radeon™ 3450 series graphics processor and a motherboard based on an AMD 880G integrated chipset, all operating in a Windows® Vista™ / 7 environment. Please refer to below PCI Express graphics card support list for ATI™ Hybrid CrossFireX™. For the future update of more compatible PCI Express graphics cards, please visit our website for further information.

Vendor	Chipset	Model	Driver
ATI	RADEON HD2400XT	POWERCOLOR HD2400 XT 256MB DDR3	Support CD 8.71
	RADEON HD3450	POWERCOLOR AX3450 256MD2-S	Support CD 8.71

Enjoy the benefit of ATI™ Hybrid CrossFireX™

Step 1. Install one compatible PCI Express graphics card to PCIE2 slot (blue). For the proper installation procedures, please refer to section “Expansion Slots”.

Step 2. Connect the monitor cable to the correspondent connector on the PCI Express graphics card on PCIE2 slot.

Step 3. Boot your system. Press <F2> to enter BIOS setup. Enter “Advanced” screen, and enter “Chipset Settings”. Then set the option “Surround View” to [Enabled].

Step 4. Boot into OS. Please remove the ATI™ driver if you have any VGA driver installed in your system.

Step 5. Install the onboard VGA driver from our support CD to your system for both the onboard VGA and the discrete graphics card.

Step 6. Restart your computer. Then you will find “ATI Catalyst Control Center” on your Windows® taskbar.

ATI Catalyst Control Center

Step 7. Double-click “ATI Catalyst Control Center”. Click “View”, click “CrossFire™”, and then select the option “Enable CrossFire™”.

Step 8. Click “Yes” to continue.

Step 9. Click “OK” to save your change.

Step 10. Reboot your system. Then you can freely enjoy the benefit of Hybrid™ CrossFireX™ feature.

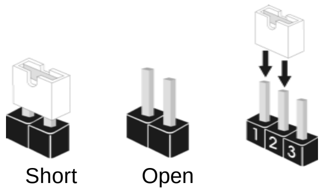
English

* Hybrid CrossFireX™ appearing here is a registered trademark of ATI™ Technologies Inc., and is used only for identification or explanation and to the owners’ benefit, without intent to infringe.

* For further information of ATI™ Hybrid CrossFireX™ technology, please check AMD website for up dates and details.

2.7 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is "Short". If no jumper cap is placed on pins, the jumper is "Open". The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when jumper cap is placed on these 2 pins.



Short Open

Jumper	Setting	
PS2_USB_PW1 (see p.2, No. 1)		Short pin2, pin3 to enable +5VSB (standby) for PS/2 or USB23 wake up events.

Note: To select +5VSB, it requires 2 Amp and higher standby current provided by power supply.

USB_PW2 (see p.2, No. 40)		Short pin2, pin3 to enable +5V_DUAL for USB01/45 wake up events.

Note: To select +5V_DUAL, it requires 2 Amp and higher standby current provided by power supply. When you select +5V_DUAL, USB devices can wake up the system under S3 (Suspend to RAM) state. To support ErP/EuP requirement, please set this jumper to +5V.

USB_PW1 (see p.2, No. 24)		Short pin2, pin3 to enable +5VSB (standby) for USB6_7/8_9/10_11 wake up events.

Note: To select +5VSB, it requires 2 Amp and higher standby current provided by power supply.

Clear CMOS Jumper (CLRCMOS1) (see p.2, No. 11)	Default Clear CMOS	

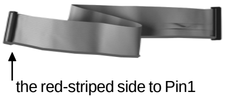
Note: CLRCMOS1 allows you to clear the data in CMOS. The data in CMOS includes system setup information such as system password, date, time, and system setup parameters. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action.

2.8 Onboard Headers and Connectors

> Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

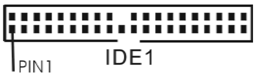
•

Floppy Connector
(33-pin FLOPPY1)
(see p.2 No. 29)



Note: Make sure the red-striped side of the cable is plugged into Pin1 side of the connector.

Primary IDE connector (Blue)
(39-pin IDE1, see p.2 No. 10)



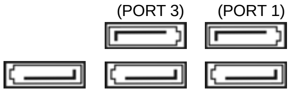
connect the blue end to the motherboard

connect the black end to the IDE devices

80-conductor ATA 66/100/133 cable

Note: Please refer to the instruction of your IDE device vendor for the details.

Serial ATAII Connectors
(SATAII_1 (PORT 0):
see p.2, No. 19)
(SATAII_2 (PORT 1):
see p.2, No. 18)
(SATAII_3 (PORT 2):
see p.2, No. 21)
(SATAII_4 (PORT 3):
see p.2, No. 20)
(SATAII_5 (PORT 4):
see p.2, No. 23)



These five Serial ATAII (SATAII) connectors support SATAII or SATA hard disk for internal storage devices. The current SATAII interface allows up to 3.0 Gb/s data transfer rate.

Serial ATA (SATA) Data Cable
(Optional)

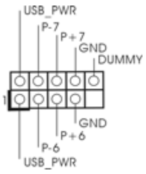
Either end of the SATA data cable can be connected to the SATA / SATAII hard disk or the SATAII connector on the motherboard.

English

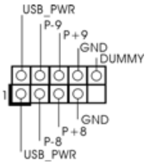
USB 2.0 Headers

(9-pin USB6_7)

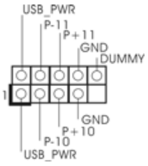
(see p.2 No. 25)



(9-pin USB8_9)
(see p.2 No. 26)



(9-pin USB10_11)
(see p.2 No. 27)

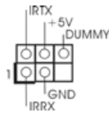


Besides five default USB 2.0 ports on the I/O panel, there are three USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

Infrared Module Header

(5-pin IR1)

(see p.2 No. 28)

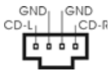


This header supports an optional wireless transmitting and receiving infrared module.

Internal Audio Connectors

(4-pin CD1)

(CD1: see p.2 No. 32)



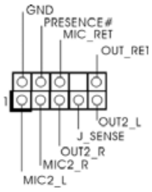
CD1

This connector allows you to receive stereo audio input from sound sources such as a CD-ROM, DVD-ROM, TV tuner card, or MPEG card.

Front Panel Audio Header

(9-pin HD_AUDIO1)

(see p.2, No. 31)



This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.

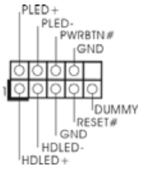
1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC’97 audio panel, please install it to the front panel audio header as below:
   A. Connect Mic_IN (MIC) to MIC2_L.
   B. Connect Audio_R (RIN) to OUT2_R and Audio_L (LIN) to OUT2_L.
   C. Connect Ground (GND) to Ground (GND).

English

D. MIC_RET and OUT_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.

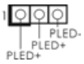
E. To activate the front mic.
For Windows® XP / XP 64-bit OS:
Select "Mixer". Select "Recorder". Then click "FrontMic".
For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:
Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

System Panel Header
(9-pin PANEL1)
(see p.2 No. 14)



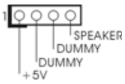
This header accommodates several system front panel functions.

Power LED Header
(3-pin PLED1)
(see p.2 No. 22)



Please connect the chassis power LED to this header to indicate system power status. The LED is on when the system is operating. The LED keeps blinking in S1 state. The LED is off in S3/S4 state or S5 state (power off).

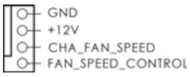
Chassis Speaker Header
(4-pin SPEAKER 1)
(see p.2 No. 17)



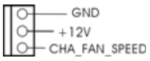
Please connect the chassis speaker to this header.

Chassis, Power and NB Fan Connectors

(4-pin CHA_FAN1)
(see p.2 No. 16)

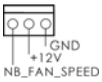


(3-pin CHA_FAN2)
(see p.2 No. 15)



(3-pin PWR_FAN1)
(see p.2 No. 39)

(3-pin NB_FAN1)
(see p.2 No. 9)



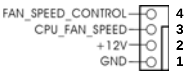
Please connect the fan cables to the fan connectors and match the black wire to the

English

CPU Fan Connector

(4-pin CPU_FAN1)

(see p.2 No. 2)



Please connect the CPU fan cable to this connector and match the black wire to the ground pin.

Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

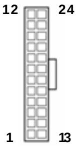
Pin 1-3 Connected

3-Pin Fan Installation

ATX Power Connector

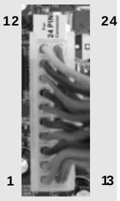
(24-pin ATXPWR1)

(see p.2 No. 8)



Please connect an ATX power supply to this connector.

Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.



20-Pin ATX Power Supply Installation

ATX 12V Power Connector

(8-pin ATX12V1)

(see p.2 No. 3)

Please connect an ATX 12V power supply to this connector.

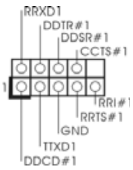
Though this motherboard provides 8-pin ATX 12V power connector, it can still work if you adopt a traditional 4-pin ATX 12V power supply. To use the 4-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 5.

4-Pin ATX 12V Power Supply Installation

Serial port Header

(9-pin COM1)

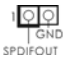
(see p.2 No.30)



This COM1 header supports a serial port module.

English

HDMI_SPDIF Header
(2-pin HDMI_SPDIF1)
(see p.2 No. 33)



HDMI_SPDIF header, providing SPDIF audio output to HDMI VGA card, allows the system to connect HDMI Digital TV/ projector/LCD devices. Please connect the HDMI_SPDIF connector of HDMI VGA card to this header.

2.9 Driver Installation Guide

To install the drivers to your system, please insert the support CD to your optical drive first. Then, the drivers compatible to your system can be auto-detected and listed on the support CD driver page. Please follow the order from up to bottom side to install those required drivers. Therefore, the drivers you install can work properly.

2.10 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit With RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit on your SATA / SATAII HDDs with RAID functions, please refer to the document at the following path in the Support CD for detailed procedures:
..\ RAID Installation Guide

2.11 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit Without RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit OS on your SATA / SATAII HDDs without RAID functions, please follow below procedures according to the OS you install.

2.11.1 Installing Windows® XP / XP 64-bit Without RAID Functions

If you want to install Windows® XP / XP 64-bit on your SATA / SATAII HDDs without RAID functions, please follow below steps.

Using SATA / SATAII HDDs without NCQ and Hot Plug functions (IDE mode)

STEP 1: Set up BIOS.

A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.

B. Set the “SATA Operation Mode” option to [IDE].

STEP 2: Install Windows® XP / XP 64-bit OS on your system.

English

2.11.2 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit Without RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit on your SATA / SATAII HDDs without RAID functions, please follow below steps.

Using SATA / SATAII HDDs without NCQ and Hot Plug functions (IDE mode)

STEP 1: Set up BIOS.

A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.

B. Set the "SATA Operation Mode" option to [IDE].

STEP 2: Install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system.

Using SATA / SATAII HDDs with NCQ and Hot Plug functions (AHCI mode)

STEP 1: Set Up BIOS.

A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.

B. Set the "SATA Operation Mode" option to [AHCI].

STEP 2: Install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system.

2.12 Untied Overclocking Technology

This motherboard supports Untied Overclocking Technology, which means during overclocking, FSB enjoys better margin due to fixed PCI / PCIE buses. Before you enable Untied Overclocking function, please enter "Overclock Mode" option of BIOS setup to set the selection from [Auto] to [CPU, PCIE, Async.]. Therefore, CPU FSB is untied during overclocking, but PCI / PCIE buses are in the fixed mode so that FSB can operate under a more stable overclocking environment.

Please refer to the warning on page 7 for the possible overclocking risk before you apply Untied Overclocking Technology.

English

3. BIOS Information

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the predetermined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

4. Software Support CD information

This motherboard supports various Microsoft® Windows® operating systems: 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file "ASSETUP.EXE" from the "BIN" folder in the Support CD to display the menus.

1. 主板简介

谢谢你采用了华擎 *880GXHU3/128M* 主板，本主板由华擎严格制造，质量可靠，稳定性好，能够获得卓越的性能。此快速安装指南包括主板介绍和分步安装向导。您可以查看支持光盘里的用户手册了解更详细的资料。

> 由于主板规格和 BIOS 软件将不断升级，本手册之相关内容变更恕不另行通知。请留意华擎网站上公布的升级版本。你也可以在华擎网站找到最新的显卡和 CPU 支持表。
> 华擎网址：http://www.asrock.com
> 如果您需要与此主板有关的技术支持，请参观我们的网站以了解您使用机种的规格信息。
> www.asrock.com/support/index.asp

1.1 包装盒内物品

华擎 *880GXHU3/128M* 主板
（ATX 规格：12.0 英寸 X 8.8 英寸，30.5 厘米 X 22.4 厘米）
华擎 *880GXHU3/128M* 快速安装指南
华擎 *880GXHU3/128M* 支持光盘
两条 Serial ATA(SATA) 数据线(选配)
一块 I/O 挡板

1.2 主板规格

架构	- ATX 规格：12.0 英寸 X 8.8 英寸，30.5 厘米 X 22.4 厘米 - 全固态电容设计
处理器	- 支持 Socket AM3 处理器：AMD Phenom™ II X6 / X4 / X3 / X2(920/940 除外) / Athlon II X4 / X3 / X2 / Sempron 处理器 - 六核心 CPU 就绪 - 支持高达 140W 的 CPU - 通过 ACC (高级时钟校准) 功能支持 AMD OverDrive™ 系统调节 - V4 + 1 电源相位设计 - 支持 AMD Cool 'n' Quiet™ 冷静技术 - 支持 FSB 2600 MHz (5.2 GT/s) - 支持异步超频技术（详见**警告 1**） - 支持 Hyper-Transport 3.0 (HT 3.0) 技术
芯片组	- 北桥：AMD 880G - 南桥：AMD SB710
系统内存	- 支持双通道内存技术（见**警告 2**） - 配备 4 个 DDR3 DIMM 插槽 - 支持 DDR3 1800(超频)/1600(超频)/1333/1066/800 non-ECC、un-buffered 内存（见**警告 3**） - 系统最高支持 16GB 容量（见**警告 4**）
扩展插槽	- 1 x PCI Express 2.0 x16 插槽(蓝色 x16 模式) - 2 x PCI Express 2.0 x1 插槽 - 3 x PCI 插槽 - 支持 ATI™ Hybrid CrossFireX™
板载显卡	- 集成 AMD Radeon HD 4250 显卡 - DX10.1 级别 iGPU，Shader Model 4.1 技术 - 最大共享内存 512MB（见**警告 5**） - 集成 128MB 板载显存支持 iGPU - 支持三个 VGA 输出选项:D-Sub、DVI-D 和 HDMI - 支持 HDMI,最高分辨率达 1920x1200 (1080p) - 支持 Dual-link DVI,最高分辨率达 2560x1600 @ 75Hz - 支持 D-Sub,最高分辨率达 2048x1536 @ 85Hz - 通过 DVI-D 和 HDMI 接口支持 HDCP 功能 - 通过 DVI-D 和 HDMI 接口可播放 1080 线蓝光光盘(BD) / HD-DVD 光盘
音效	- 7.1 声道高保真音频，支持内容保护功能 (Realtek ALC892 音频编解码器) - 支持优质蓝光音效

简体中文

板载LAN 功能	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - 支持网路唤醒（Wake-On-LAN）
Rear Panel I/O **（后面板输入/输出接口）**	I/O 界面 - 1 个PS/2 键盘接口 - 1 个VGA/D-Sub 接口 - 1 个VGA/DVI-D 接口 - 1 个HDMI 接口 - 1 个光纤SPDIF 输出接口 - 5 个可直接使用的USB 2.0 接口 - 1 个eSATAII 接口 - 1 个可直接使用的USB 3.0 接口 - 1 个RJ-45 局域网接口与LED 指示灯(ACT/LINK LED 和 SPEED LED) - 高保真音频插孔：后置喇叭/中置喇叭/低音喇叭/音频输入/前置喇叭/麦克风 （见**警告**6）
USB 3.0	- 1 x Fresco FL1000G 的USB 3.0 连接头，支持USB 3.0 到 5Gb/s
连接头	- 5 x SATAII 3.0Gb/s 连接头，支持RAID (RAID 0, RAID 1, RAID 10 和JBOD), NCQ, AHCI 和“热插拔”功能（详见**警告**7） - 1 x ATA133 IDE 插座 (最高支持2 个IDE 驱动器) - 1 x 软驱接口 - 1 x 红外线模块接头 - 1 X 串行接口连接器 - CPU/ 机箱/ 北桥/ 电源风扇接头 - 24 针ATX 电源接头 - 8 针12V 电源接头 - 内置音频接头 - 前置音频面板接头 - 3 x USB 2.0 接口 (可支持6 个额外的USB 2.0 接口)
BIOS	- 8Mb AMI BIOS - 采用AMI BIOS - 支持即插即用（Plug and Play,PnP） - ACPI 1.1 电源管理 - 支持唤醒功能 - 支持jumperfree 免跳线模式 - 支持SMBIOS 2.3.1 - CPU, VCCM, NB, SB 电压多功能调节器

简体中文

支持光盘	- 驱动程序，工具软件，杀毒软件（试用版），AMD OverDrive™ 工具，AMD Live!浏览器，AMD Fusion，华擎软件套装（CyberLink DVD 套件与 Creative Sound Blaster X-Fi MB）（OEM 与试用版）
独家功能	- 华擎超频调节器（详见**警告** 8） - 智能节能器（Intelligent Energy Saver）（见**警告** 9） - 即时开机功能 - 华擎 Instant Flash（见**警告** 10） - 华擎 OC DNA （见**警告** 11） - Hybrid Booster（安心超频技术）： 　- 支持 CPU 无级频率调控（见**警告** 12） 　- ASRock U-COP（见**警告** 13） 　- Boot Failure Guard （B.F.G.，启动失败恢复技术） - Turbo 40 / Turbo 50 GPU 超频
硬件监控器	- CPU 温度侦测 - 主板温度侦测 - CPU/ 机箱 / 北桥 / 电源风扇转速计 - CPU 静音风扇 - CPU/ 机箱风扇多速控制 - 电压范围：+12V，+5V，+3.3V，核心电压
操作系统	- Microsoft® Windows® 7/7 64 位元 /Vista™/Vista™ 64 位元 /XP/XP 多媒体中心 /XP 64 位元适用于此主板
认证	- FCC，CE，WHQL - 支持 ErP/EuP（需要同时使用支持 ErP/EuP 的电源供应器）（见**警告** 14）

* 请参阅华擎网站了解详细的产品信息：http://www.asrock.com

警 告

请了解超频具有不可避免的风险，这些超频包括调节 BIOS 设置、运用异步超频技术或使用第三方超频工具。超频可能会影响您的系统稳定性，甚至会导致系统组件和设备的损坏。这种风险和代价须由您自己承担，我们对超频可能导致的损坏不承担责任。

简体中文

警告！

1. 这款主板支持异步超频技术。请阅读第 26 页的”Untied Overclocking Technology”(自由超频技术)了解详情。
2. 这款主板支持双通道内存技术。在您实现双通道内存技术之前，为能正确安装，请确认您已经阅读了第 36 页的内存模组安装指南。
3. 1800/1600MHz 内存频率是否支持在于您使用的 AM3 CPU 。如果您想在这款主板上使用 DDR3 1800/1600 内存条,请查阅我们网站的内存支持列表了解兼容的内存。华擎网站 http://www.asrock.com
4. 由于操作系统的限制，在 Windows® 7 / Vista™ / XP 下，供系统使用的实际内存容量可能小于 4GB 。对於 Windows® 操作系统搭配 64 位元 CPU 来说， 不会存在这样的限制。
5. 最大共享内存大小由芯片组厂商定义并且可以更改。请查阅 AMD 网站了解最新资讯。
6. 在麦克风输入方面，这款主板支持立体声和单声道这两种模式。在音频输出方面，这款主板支持 2 声道、 4 声道、 6 声道以及 8 声道模式。请查阅第 3 页的表格了解正确的连接方式。
7. 在将 SATAII 硬盘连接到 SATAII 接口之前，请阅读 CD 光盘中的“User Manual”(用户手册， 英文版)第 29 页的“SATAII Hard Disk Setup Guide”（SATAII 硬盘安装指南）调整您的 SATAII 硬盘驱动器为 SATAII 模式。您也可以直接将 SATA 硬盘连接到 SATAII 接口。
8. 这是一款具有友好使用介面的华擎超频工具,让您通过硬件监控功能监控您的系统,帮助您在 Windows® 环境下对硬件运行超频以获得最佳的系统性能。请访问我们的网站了解华擎超频调节器的使用方法。
   华擎网站： http://www.asrock.com
9. 智能节能器(Intelligent Energy Saver)采用先进的软硬件专利设计,这项革新技术带来极佳的节能效果。当 CPU 核心闲置时,电压调节器可以简小输出电压的相数,有助于提升能源效率。换句话说,它可以在不牺牲性能的前提下,让系统更省电,并提高能源效率。为了使用智能节能器(Intelligent Energy Saver)的功能,请在 BIOS 的高级设置里启用 Cool ‘n’ Quiet 选项。请访问我们的网站了解智能节能器(Intelligent Energy Saver)的使用方法。华擎网站： http://www.asrock.com
10. 华擎 Instant Flash 是一个内建于 Flash ROM 的 BIOS 更新工具程序。这个方便的 BIOS 更新工具可让您无需进入操作系统(如 MS-DOS 或 Windows®)即可进行 BIOS 的更新。在系统开机自检过程中按下<F6>键或在 BIOS 设置菜单中按下<F2>键即可进入华擎 Instant Flash 工具程序。启动这一程序後,只需把新的 BIOS 文件保存在 U 盘、软盘或硬盘中,轻松点击鼠标就能完成 BIOS 的更新,而不再需要准备额外的软盘或其他复杂的更新程序。请注意:U 盘或硬盘必须使用 FAT32/64 文件系统。
11. 软件的名字本身-OC DNA 已经向您透露了它的用途。 OC DNA 是华擎独家研发的创新工具程序,它为用户提供一种记录超频设置并与他人分享的简单方法。这个好用的工具程序可帮助您在操作系统中保存超频记录,大大简化了超频设置的记录过程。有了 OC DNA,您可以将超频设置保存为一个设置文件并与朋友分享!请注意:超频设置文件只能在相同的主板上分享和使用。

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12. 尽管本主板提供无级频率调控，但不推荐用户超频使用。不同于标准 CPU 总线频率的非标准频率可能会使系统不稳定，甚至会损害 CPU 和主板。
13. 当检测到 CPU 过热问题时，系统会自动关机。在您重新启动系统之前，请检查主板上的 CPU 风扇是否正常运转并拔出电源线，然后再将它插回。为了提高散热性，在安装 PC 系统时请在 CPU 和散热器之间涂一层导热胶。
14. EuP，全称 Energy Using Product（能耗产品），是欧盟用来定义完整系统耗电量的规定。根据 EuP 的规定，一个完整系统在关机模式下的交流电总消耗必须在 1.00W 以下。为满足 EuP 标准，您需要同时具备支持 EuP 的主板和支持 EuP 的电源供应器。根据 Intel® 的建议，支持 EuP 的电源供应器必须满足在 100mA 电流消耗时，5Vsb 电源效率高于 50%。有关支持 EuP 的电源供应器选择方面的更多细节，我们建议您咨询电源供应器的制作商。

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2. 主板安装

这是一款ATX规格的主板(12.0英寸 X 8.8英寸, 30.5厘米 X 22.4厘米)。在安装主板之前，了解您的机箱配置以确保主板的正确安装。

安全防范

安装主板时，注意以下安全防范:

> 在您安装或者拆卸任何组件之前，确保已关闭电源或者已拔掉电源线。错误的做法可能会导致主板、外围设备或组件严重受损。

1、 设备要有良好的接地线，避免静电损害，进行安装前，请先断开电源，否则会损坏主板。
2、 为了避免主板上的组件受到静电损害，绝不要把主板径直放到地毯等类似的地方，也要记住在接触主板前使用一个静电手腕带或接触金属。
3、 通过边缘拿住整块主板安装，切毋接触芯片。
4、 在证明放掉静电后，方可进行安装。
5、 当把螺丝钉放入螺丝孔用来将主板固定到机箱上时，请不要过度拧紧螺丝！这样做很可能会损坏主板。

2.1 CPU 安装

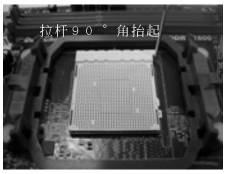
步骤1： 移动固定杆90°角解除插槽锁。

步骤2： 将CPU直接放置在CPU插槽上方，让有金三角标记的CPU一角与插槽上有小三角标记的一角对齐。

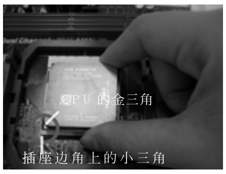
步骤3： 谨慎地将处理器插入插槽直到它安装到恰当的位置。

> CPU安装都只有一个正确的方向,为了避免损坏针脚,请不要强迫将CPU插入插槽中。

步骤4： 处理器放置妥当后，按紧它并推下插槽固定杆来稳固处理器。推动固定杆到侧面的突起部分时会发出“答”的声响表明它被锁住了。



步骤１：
抬起插座拉杆



步骤２ / 步骤3：
将CPU 的金三角对准插座边角上的小三角

步骤４：
下推并锁住插座拉杆

2.2 安装CPU 风扇和散热片

在主板上安装CPU之後，必须安装大尺寸散热片和散热风扇。同时，您还需要在CPU和散热片之间涂抹散热硅脂改进散热效果。确保CPU和散热片彼此接触稳固良好。接著将CPU风扇连接到CPU FAN接口(CPU_FAN，参看第2页 No. 2)。为了正确安装，请仔细查阅CPU风扇和散热器的使用说明。

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2.3 内存安装

此主板提供四组 240-针 DDR3 (Double Data Rate 3，双倍数据传输速率) DIMM 内存插槽，并且支援双通道内存技术。为了配置双通道，您必须在相同颜色的插槽安装一对同样的（相同的牌子、速度、容量以及芯片类型）DDR3 DIMM 内存条。换句话说，您要在双通道 A 安装同样的 DDR3 DIMM 内存条（DDR3_A1 和 DDR3_B1；蓝色插槽；参见 p.2 No.6）或者在双通道 B 安装同样的 DDR3 DIMM 内存条（DDR3_A2 和 DDR3_B2；白色插槽；参见 p.2 No.7），这样双通道内存技术就会被激活了。这款主板也允许您为了配置双通道功能安装四条 DDR3 DIMM 内存条。这种情况下，您需要在所有的四组插槽上安装同样的 DDR3 DIMM 内存条。请查阅下面的双通道内存配置表。

双通道内存配置

	DDR3_A1 （蓝色插槽）	DDR3_B1 （蓝色插槽）	DDR3_A2 （白色插槽）	DDR3_B2 （白色插槽）
(1)	板上组装	板上组装	-	-
(2)	-	-	板上组装	板上组装
(3)	板上组装	板上组装	板上组装	板上组装

* 为了这个配置(3)， 请在这 4 个插槽上安装同样的 DDR3 内存。

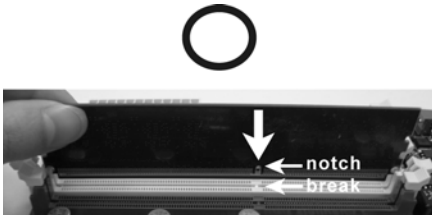
1. 如果您打算安装两根内存条，为了最佳的兼容性和可靠性，我们推荐将它们安装到相同颜色的插槽上。换言之，将它们安装到 DDR3_A1 和 DDR3_B1 或 DDR3_A2 和 DDR3_B2。
2. 如果仅仅在这款主板的 DDR3 DIMM 内存插槽上安装单条内存模组或者三条内存模组，这将无法激活双通道内存技术。
3. 如果一对内存模组并未安装在相同的“双通道”上，例如将一对内存模组安装在了 DDR3_A1 和 DDR3_A2，这将不能激活双通道内存技术。
4. 不允许将 DDR 或 DDR2 内存条插入 DDR3 插槽，否则主板和 DIMM 有可能损坏。
5. 如果您在这款主板上使用 DDR3 1800/1600 内存条，推荐将内存条安装到 DDR3_A2 和 DDR3_B2 插槽。

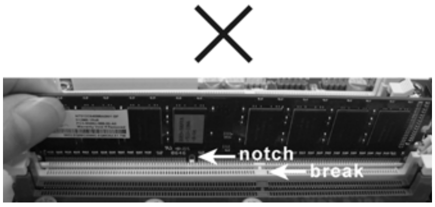
安装步骤：

请确保在添加或移走DIMM内存或系统部件之前切断电源适配器。

1、 DIMM插槽两端的起拔器向外扳开。

2、 将每个DIMM插槽的凹口与DIMM内存上凸出部分对应，使凹口与凸出部分吻合，内存即能正确安装。





DIMM内存只能以正确的方向安装。如果你以错误的方向强行将DIMM内存插入插槽，那将会导致主板和DIMM内存的永久性损坏。

3、 将DIMM内存平稳地插入插槽直至两端卡子迅速而充分地归位以及DIMM内存完全就位。

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2.4 扩展插槽 （PCI 插槽以及 PCI Express 插槽）

此主板配备 3 个 PCI 插槽和 3 个 PCI Express 插槽。

P C I 插槽： 此插槽可用来安插 3 2 位的扩展 P C I 卡。

P C I E 插槽： PCIE1/PCIE3 （PCIE x1 插槽；白色）用来安装 PCIE x1 显卡，例如千兆网卡， SATA2 卡等。
PCIE2 （PCIE x16 插槽；蓝色）支持 PCI Express x16 显卡，或者用于安装 PCI Express 显卡。

安装步骤：

步骤 1 、 在安装扩展卡之前，请确认已经关闭电源或拔掉电源线。在你安装之前，请阅读扩展卡的说明并完成必需的硬件设置。

步骤 2 、 移动机箱挡板，以便使用扩展槽。

步骤 3 、 选择一个扩展槽安装扩展卡，装进机箱并用螺丝固定。

步骤 4 、 确定接触正确，没有单边翘起的现象。

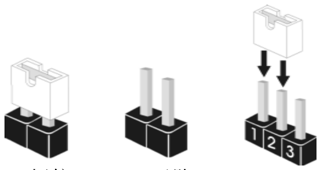
2.5 ATI™ Hybrid CrossFireX™ 混合交叉火力功能操作指南

这款主板支持 ATI™ Hybrid CrossFireX™ 混合交叉火力功能。ATI™ Hybrid CrossFireX™ 混合交叉火力功能提供多 GPU 性能，通过同时运行 AMD 880G 集成显卡和外接独立显卡，并整合成单显示器输出，达到极高显示数。目前，ATI™ Hybrid CrossFireX™ 混合交叉火力技术仅支持 Windows® Vista™ / 7 操作系统，不支持 Windows® XP 操作系统。将来 ATI™ Hybrid CrossFireX™ 混合交叉火力技术可能会支持 Windows® XP 操作系统，请随时访问我们的网站了解最新的消息。请参阅第 18 页了解详细的安装步骤和兼容的 PCI Express 显卡信息。

简体中文

2.6 跳线设置

插图所示的就是设置跳线的方法。当跳线帽放置在针脚上时，这个跳线就是“短接”。如果针脚上没有放置跳线帽，这个跳线就是“开路”。插图显示了一个3针脚的跳线，当跳线帽放置在针脚1和针脚2之间时就是“短接”。



短接　　开路

接脚	设定	
PS2_USB_PW1 (见第2页第1项)		短接pin2 和pin3，就可以设置+5VSB(待机)，使PS/2 或USB23 能唤醒系统。

注意：选择+5VSB，电源必须能提供+2 AMP 或更高的待机电流。

USB_PW2 (见第2页第40项)		短接pin2 和pin3，就可以设置+5V_DUAL，使USB01/45能唤醒系统。

注意：选择+5V_DUAL，电源必须能提供+2 AMP 或更高的待机电流。当您选择+5V_DUAL时，USB设备可唤醒处于S3(挂起到内存)状态下的系统。

USB_PW1 (见第2页第24项)		短接pin2 和pin3，就可以设置+5VSB(待机)，使USB6_7/8_9/10_11能唤醒系统。

注意：选择+5VSB，电源必须能提供+2 AMP 或更高的待机电流。

清除CMOS (CLRCMOS1，3针脚跳线) (见第2页第11项)	默认设置　清除CMOS	

注意：CLRCMOS1允许您清除CMOS 里的资料。在CMOS里的资料包括系统设置资讯，例如系统密码，日期，时间及系统设置参数。为了清除并重置系统参数到默认设置，请关闭电脑并拔掉电源线，然後用跳线帽短接CLRCMOS1上的pin2和pin3五秒钟。如果您需要再完成BIOS刷新时清除CMOS，您必须首先启动系统，然後在您进行CMOS清除操作之前关闭系统。

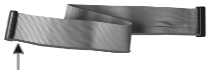
简体中文

2.7 连接头

此类连接头是不用跳线帽连接的，请不要用跳线帽短接这些连接头。
跳线帽不正确的放置将会导致主板的永久性损坏！

连 接 头　　　　图 示　　　　说 明

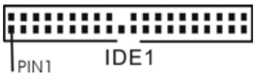
软驱接头
(33 针 FLOPPY1)
(见第 2 页第 29 项)



将标示红色斑纹的一边插入第 1 针脚(Pin1)

注 意： 请确保数据线标红色斑纹的一边插入连接器第 1 针脚（Pin1）的位置。

主 IDE 连接头(蓝色)
(39 针 IDE1，见第 2 页第 10 项)



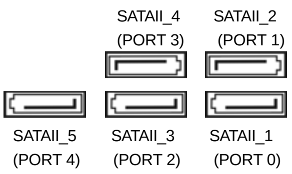
蓝色端接到主板上

黑色端接到硬盘驱动器上

80 针 的 ATA 66/100/133 排线

注 意： 请查阅您的 IDE 驱动器供应商提供的说明书了解详细资料。

Serial ATAII 接口
(SATAII_1(PORT 0)
见第 2 页第 19 项)
(SATAII_2(PORT 1)
见第 2 页第 18 项)
(SATAII_3(PORT 2)
见第 2 页第 21 项)
(SATAII_4(PORT 3)
见第 2 页第 20 项)
(SATAII_5(PORT 4)
见第 2 页第 23 项)



这里有五组 Serial ATAII (SATAII) 接口支持 SATA 或 SATAII 硬盘作为内部储存设置。目前 SATAII 界面理论上可提供高达 3.0Gb/s 的数据传输速率。

Serial ATA (SATA)
数据线
(选配)

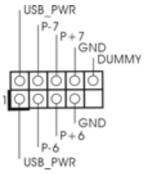
SATA 数据线的任意一端均可连接 SATA/SATAII 硬盘或者主板上的 SATAII 接口。

简体中文

USB 2.0 扩展接头

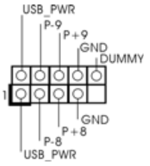
(9针 USB6_7)

(见第2页第25项)



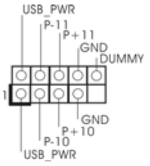
(9针 USB8_9)

(见第2页第26项)



(9针 USB10_11)

(见第2页第27项)

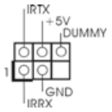


除了位於I/O 面板的五个默认USB 2.0接口之外，这款主板有三组USB 2.0接针。这组USB 2.0接针可以支持两个USB 2.0接口。

红外线模块接头

(5针 IR1)

(见第2页第28项)

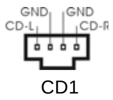


这个接头支持一个选配的无线发送和接受红外线的模块。

内置的音频接头

(4针 CD1)

(CD1 见第2页第32项)

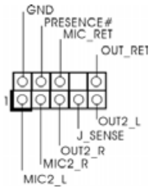


可以通过CD-ROM， DVD-ROM，TV 调谐器或MPEG 卡接收音频输入。

前置音频面板接头

(9针 HD_AUDIO1)

(见第2页第31项)



可以方便连接音频设备。

1.高保真音频(High Definition Audio, HDA)支持智能音频接口检测功能(Jack Sensing),但是机箱面板的连线必须支持HDA才能正常使用。请按我们提供的手册和机箱手册上的使用说明安装您的系统。

2.如果您使用AC’97音频面板,请按照下面的步骤将它安装到前面板音频接针:

A. 将Mic_IN(MIC)连接到MIC2_L。

B. 将Audio_R(RIN)连接到OUT2_R,将Audio_L(LIN)连接到OUT2_L。

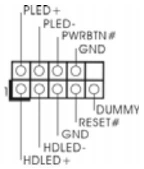
C. 将Ground(GND)连接到Ground(GND)。

D. MIC_RET和OUT_RET仅用于HD音频面板。您不必将它们连接到AC’97音频面板。

简体中文

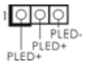
E. 激活前置麦克风。
在 Windows® XP / XP 64 位操作系统中:
选择”Mixer”。选择”Recorder”。接著点击”FrontMic”。
在 Windows® 7 / 7 64 位 / Vista™ / Vista™ 64 位操作系统中:
在 Realtek 控制面板中点选”FrontMic”标签页。调节”Recording Volume”。

系统面板接头
(9 针 PANEL1)
(见第 2 页第 14 项)



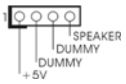
这个接头提供数个系统前面板功能。

电源指示灯连接排针
(3 针 PLED1)
(见第 2 页第 22 项)



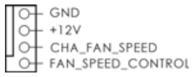
请将机箱电源指示灯连接到这一排针，以指示系统电源状态。当系统正在运行时，LED 指示灯亮。在 S1 模式下，LED 指示灯会不停闪烁。在 S3/S4 或 S5 模式(关机)下，LED 指示灯会熄灭。

机箱喇叭接头
(4 针 SPEAKER1)
(见第 2 页第 17 项)

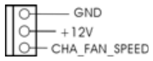


请将机箱喇叭连接到这个接头。

机箱，北桥芯片，电源风扇接头
(4 针 CHA_FAN1)
(见第 2 页第 16 项)

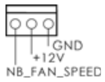


(3 针 CHA_FAN2)
(见第 2 页第 15 项)



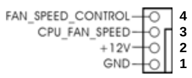
(3 针 PWR_FAN1)
(见第 2 页第 39 项)

(3 针 NB_FAN1)
(见第 2 页第 9 项)



请将风扇连接线接到这个接头，并让黑线与接地的针脚相接。

CPU 风扇接头
(4 针 CPU_FAN1)
(见第 2 页第 2 项)



请将 CPU 风扇连接线接到这个接头，并让黑线与接地的针脚相接。

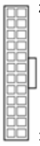
简体中文

虽然此主板支持 4-Pin CPU 风扇(Quiet Fan,静音风扇),但是没有调速功能的 3-Pin CPU 风扇仍然可以在此主板上正常运行。如果您打算将 3-Pin CPU 风扇连接到此主板的 CPU 风扇接口,请将它连接到 Pin 1-3 。

Pin 1-3 连接

3-Pin 风扇的安装

ATX 电源接头
(24 针 ATXPWR1)
(见第 2 页 8 项)



请将 ATX 电源供应器连接到这个接头。

虽然此主板提供 24-pin ATX 电源接口,但是您仍然可以使用传统的 20-pin ATX 电源。为了使用 20-pin ATX 电源,请顺著 Pin 1 和 Pin 3 插上电源接头。

20-Pin ATX 电源安装说明

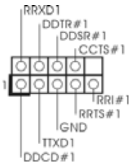
ATX 12V 电源接口
(8 针 ATX12V1)
(见第 2 页第 3 项)

请注意，必需将带有 ATX 12V 插头的电源供应器连接到这个插座，这样就可以提供充足的电力。如果不这样做，就会导致供电故障。

虽然此主板提供 8-pin ATX 12V 电源接口,但是您仍然可以使用传统的 4-pin ATX 12V 电源。为了使用 4-pin ATX 12V 电源,请顺著 Pin 1 和 Pin 5 插上电源接头。

4-Pin ATX 12V 电源安装说明

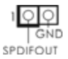
串行接口连接器
(9 针 COM1)
(见第 2 页第 30 项)



这个 COM1 端口支持一个串行接口的外设。

简体中文

HDMI_SPDIF 接头
(2 针 HDMI_SPDIF1)
(见第 2 页第 33 项)



HDMI_SPDIF 接头，提供 SPDIF 音频输出至 HDMI 显卡，支持将电脑连接至带 HDMI 的数字电视 / 投影仪 / 液晶显示器等设备。请将 HDMI 显卡的 HDMI_SPDIF 接口连接到这个接头。

2.8 驱动程序安装指南

要将驱动程序安装到您的系统，首先请您将支持光盘放入光驱里。然后，系统即可自动识别兼容的驱动程序，并在支持光盘的驱动程序页面里依次列出它们。请依此从上到下安装那些必须的驱动程序。如此您安装的驱动程序就可以正常工作了。

2.9 在带 RAID 功能的系统上安装 Windows® 7 / 7 64 位元 Vista™ / Vista™ 64 位元 / XP / XP 64 位元

如果您想在 SATA / SATAII 硬盘上使用 RAID 功能安装 Windows® 7 / 7 64 位元 / Vista™ / Vista™ 64 位元 / XP / XP 64 位元操作系统，请查阅随机支持光盘如下路径里的文件了解详细步骤：
..\ RAID Installation Guide

2.10 在不带 RAID 功能的系统上安装 Windows® XP / XP 64 位元 / Vista™ / Vista™ 64 位元

如果您打算在不带 RAID 功能的 SATA / SATAII 硬盘上安装 Windows® XP / XP 64 位元 / Vista™ / Vista™ 64 位元操作系统，请根据您安装的操作系统按如下步骤操作。

2.10.1 在不带 RAID 功能的系统上安装 Windows® XP / XP 64 位元

如果您打算在不带 RAID 功能的 SATA / SATAII 硬盘上安装 Windows® XP / XP 64 位元操作系统，请按如下步骤操作。

Using SATA / SATAII HDDs without NCQ function (使用不带 NCQ 功能的 SATA / SATAII 硬盘)

步骤 1： 设置 BIOS 。
A. 进入 BIOS SETUP UTILITY (BIOS 设置程序)→ Advanced Screen (高级界面)→ Storage Configuration (存储配置)。
B. 将”SATA Operation Mode”选项设置为[IDE]。
步骤 2： 在系统上安装 Windows® XP / XP 64 位元操作系统。

2.10.2 在不带RAID功能的系统上安装Windows® 7 / 7 64位元 / Vista™ / Vista™ 64位元

如果您打算在不带RAID功能的SATA / SATAII硬盘上安装Windows® 7 / 7 64位元/ Vista™ / Vista™ 64位元，请按下面的步骤操作。

Using SATA / SATAII HDDs without NCQ function （使用不带NCQ功能的SATA / SATAII硬盘）

步骤1： 设置BIOS。

A. 进入BIOS SETUP UTILITY（BIOS设置程序）→ Advanced Screen（高级界面）→ Storage Configuration（存储配置）。

B. 将"SATA Operation Mode"选项设置为[IDE]。

步骤2： 在系统上安装Windows® 7 / 7 64位元 / Vista™ / Vista™ 64位元操作系统。

Using SATA / SATAII HDDs with NCQ function （使用带NCQ功能的SATA / SATAII硬盘）

步骤1： 设置BIOS。

A. 进入BIOS SETUP UTILITY（BIOS设置程序）→ Advanced Screen（高级界面）→ Storage Configuration（存储配置）。

B. 将"SATA Operation Mode"选项设置为[AHCI]。

步骤2： 在系统上安装Windows® 7 / 7 64位元 / Vista™ / Vista™ 64位元操作系统。

3. BIOS 信息

主板上的 Flash Memory 芯片存储了 BIOS 设置程序。启动计算机，在机器开机自检(POST)的过程中按下<F2>键，就可进入 BIOS 设置程序，否则将继续进行开机自检之常规检验。如果须要在开机自检后进入 BIOS 设置程序，请按下 <Ctl> + <Alt> + <Delete>键重新启动计算机，或者按下系统面板上的重启按钮。功能设置程序储存有主板自身的和连接在其上的设备的缺省和设定的参数。这些信息用于在启动系统和系统运行需要时，测试和初始化元器件。有关 BIOS 设置的详细信息，请查阅随机支持光盘里的用户手册(PDF 文件)。

4. 支持光盘信息

本主板支持各种微软视窗操作系统：Microsoft® Windows® 7/7 64 位元/Vista™/Vista™ 64 位元/XP/XP 多媒体中心/XP 64 位元。主板附带的支持光盘包含各种有助于提高主板效能的必要驱动和实用程序。请将随机支持光盘放入光驱里，如果计算机的“自动运行”功能已启用，屏幕将会自动显示主菜单。如果主菜单不能自动显示，请查找支持光盘内 BIN 文件夹下的 ASSETUP.EXE 文件并双击它，即可调出主菜单。

简体中文

电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及 SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为 10 年。

图一

有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅(Pb)	镉(Cd)	汞(Hg)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
印刷电路板及其电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注： 此产品所标示之环保使用年限，系指在一般正常使用状况下。